

REMARKS/ARGUMENTS

Claims 10-32 and 34-56 are currently pending; with claims 10, 13, 15, 19, 25, 34, 35, 36 and 37 being the independent claims. Claims 1-9 and 33 were previously canceled. Claims 10-32, 34-36, 38-40 and 43-56 are withdrawn.

Based on the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Rejections Under 35 U.S.C. 103(a)

The Examiner has rejected claims 37, 41 and 42 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,913,581 to Ritson et al. ("Ritson") in view of U.S. Patent No. 5,207,674 to Hamilton ("Hamilton"). The Examiner states that Ritson describes a cryogenic apparatus that includes valves, a valve controller, a cooling mode, a heating mode and a flushing mode. The Examiner recognizes that Ritson fails to disclose program-controlled cycles of cooling and heating and relies upon a combination with Hamilton for such a feature. The Examiner asserts that it would have been obvious to one having ordinary skill in the art to combine the apparatus of Ritson with automated heating and cooling cycles of Hamilton.

Claim 37 recites an apparatus for supplying refrigerant fluid to a cooling device. The device includes valves and a control unit that is configured to control the valves so that the device may be placed in a first mode of operation and a second mode of operation. In the first mode of operation, cooling is generated in the cooling device and in the second mode of operation, heating is generated in the device. The control unit also comprises a storage device that is configured to store data that defines a program sequence of at least one cycle of the first and second modes of operation.

Ritson describes cryosurgical instruments that utilize a refrigerant fluid. Ritson describes providing rapid warming of the apparatus by including valve means that connects a second duct of the device to a source of high pressure refrigerant so that the gas flow is reversed and the gas condenses within the device on cold surfaces. See Fig. 4 and discussion beginning at Col. 5, Line 57.

Conversely, Hamilton teaches away from cryogenic apparatuses that utilize refrigerant fluids. Instead, Hamilton teaches a thermoelectric apparatus that may be cycled by a control system. In particular, Hamilton states that “[t]he application of spray into a closed tube gives some temperature rate control, but with great difficulty and imprecise cycle reproducibility.” Hamilton col. 1, lines 64-66. Hamilton also distinguishes devices that incorporate a refrigerant confined within a hollow cryoprobe as requiring the “purchase and storage of expensive, volatile refrigerants which quickly evaporate, no matter how well they are insulated.” Hamilton col. 2, lines 6-8 and col. 2, lines 19-24. Furthermore, compares time/temperature histories for an apparatus utilizing a closed end tube cooled by spray of a cryogen and an apparatus that utilizes thermoelectric coolers and heaters. With reference to those figures, Hamilton describes the inability of devices utilizing refrigerant fluids to properly cycle the temperature of tissue. Hamilton Figures 6 and 6A and col. 9, line 30 through col. 10, line 16. As noted above, Hamilton repeatedly presents inadequacies and undesirable characteristics of cryogenic apparatuses that employ refrigerant fluids.

It is improper to combine references where the references teach away from their combination. In re Grasselli, 7133 F.2d 731, 743 and MPEP 2145(X)(D)(2). Hamilton repeatedly distinguishes apparatuses utilizing refrigerant fluids and teaches that such systems provide difficult and imprecise cycle reproducibility. Therefore, a person having ordinary skill

in the art would not have been motivated to combine the programmed cycling described in Hamilton with the refrigerant fluid apparatus described in Ritson. As a result, the combination of Ritson with Hamilton is improper and claim 37 is patentable. Claims 41 and 42 depend from and include all of the features of claim 37 and for the same reasons are patentable.

Rejoinder of Claims 38-56

The Applicant requests that claims 38-40 and 43-56 be rejoined and the restriction requirement be withdrawn. A restriction requirement between an elected invention and any nonelected invention that depends from an allowable claim should be withdrawn. MPEP 821.04(a). Claims 38-56 were newly submitted in the Response to Office Action dated November 28, 2005. In response, the Examiner restricted claims 38-40 and 43-56 as being directed to a non-elected invention, withdrew those claims and examined claims 37, 41 and 42. Claims 38-40 and 43-56 depend from and include all of the features of claim 37. As described above, claim 37 is patentable. Therefore, claims 38-40 and 43-56 depend from an allowable claim and should be rejoined.

Conclusion

It is believed this amendment now has placed the application in condition for reconsideration and allowance. If necessary, the Commissioner is hereby authorized in this and

concurrent replies to charge payment (or credit any overpayment) to Deposit Account No.
50-0683 of Luce, Forward, Hamilton & Scripps.

Respectfully submitted,

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Date



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